



REPLACEMENT PARAGRAPHS IN CLEAN FORM

SUBMITTED IN ACCORDANCE WITH 37 CFR 1.121(b)(1)(ii)

IN RESPONSE TO OFFICE ACTION OF 5 JUNE 2001

IN THE SPECIFICATION

Please delete and replace the single sentence paragraph immediately below the list of inventors' names on the first page of the specification with the following rewritten paragraph:

A1 This application is a continuation-in-part of co-pending United States Application Serial No. 09/034,763 filed on March 4, 1998, which matured into U.S. Patent 6,042,673 issued on 28 March 2000.

Please delete and replace the paragraph beginning on page 11 at line 13 with the following rewritten paragraph:

A2 The electromagnetic field responsive member(s) 205 may include any conductive material or materials, a material or materials such as a polymer having a dipole moment or an ionic charge that responds to an electromagnetic field and a sufficient dielectric loss so that the material will dissipate heat in response to the electromagnetic field, or a combination of these materials. The electromagnetic responsive member(s) 205 may take on any shape, size or configuration suitable for the particular seam to be formed. Further, the electromagnetic field responsive member(s) 205 may be separate elements joined to the first or second member(s) 200 and 202 or a separate member not joined to the first or second members 200 and 202, but merely provided in a position to react to the electromagnetic field while the seam 10 is being formed. Alternatively, the electromagnetic field responsive member(s) 205 may comprise an element or material that is unitary or integrated with at least a portion of the first member 200 or second member 202, such as a material coextruded with the first member 200 or the second member 202, or portion of the first member 200 or second member 202 that has been coated or impregnated to act as an electromagnetic field responsive member.

Please delete and replace the paragraph beginning on page 11 at line 28 and continuing onto page 12 with the following rewritten paragraph:

A3 Examples of suitable conductive electromagnetic field responsive members 205 include, but are not limited to ferro-magnetic materials, metallic foils and screens such as aluminum,

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copper and nickel, metallic powders such as bismuth powder and any conductive materials known in the art. (As used herein the term "conductive" refers to materials which increase in temperature when in the presence of eddy currents generated by an alternating current flowing through an electromagnetic coil.) The conductive electromagnetic field responsive members 205 may also be in the form of a composite material such as a solution, adhesive, lotion, film, web, etc. including the conductive material. Some exemplary conductive materials are available from the Ashland Chemical Company under the trade name EMAWELD. Generally, the composition of the electromagnetic field responsive members 205 will be limited only by the particular electromagnetic frequency to be used and intensity of heat which is needed to properly join the first member 200 and the second member 202. The conductive material may also be magnetic which may increase the efficiency of the heating due to an hysteretic loss of the material when it is placed in an electromagnetic field.

Q4 Please delete and replace the paragraph beginning on page 13 at line 25 and continuing onto page 14 with the following rewritten paragraph:

In one preferred embodiment, as shown in Figure 3, once the electromagnetic field responsive member 205 is provided, the first member 200 is folded about the electromagnetic field responsive member 205. (As stated above, the exact order of the steps of the process is not critical, thus, the electromagnetic field responsive member 205 may be provided before or after the first member 200 is folded.) The fold 215 preferably separates the first member 200 into two portions, a first proximal portion 210 and an opposing first distal portion 212. Preferably, the electromagnetic field responsive member 205 is disposed at least partially between the opposing first proximal and first distal portions 210 and 212, as shown in Figure 3. The length of the first proximal portion 210 and the first distal portion 212 is not critical, and either or both may comprise any number of layers and/or folds. In fact, it is recognized that one way to increase the strength of the finished seam is to provide more material in the seam area 250. In an alternative embodiment, the first member 200 is folded about the electromagnetic field responsive member 205 and at least a portion of the second member 202, as shown in Figure 4.

Please delete and replace the paragraph beginning on page 15 at line 17 and continuing onto page 16 with the following rewritten paragraph:

Q5 The electromagnetic field used to heat the electromagnetic field responsive member 205 may be provided by any means known in the art. In one embodiment, as shown in Figure 9, the electromagnetic field 510 is provided by an induction coil 500. (An exemplary induction coil is the Nova Series induction heating power supply available from Ameritherm, Inc. of Scottsville, NY. Specifically, a NOVA3, 3Kw power supply (220 volts, 60Hz, 3 phase) powering a small pancake style induction coil operating at 393 KHz has been found to be suitable.) The induction coil 500 is placed in the proximity of the seaming area 250 such that the electromagnetic field 510 produced by the coil radiates across the electromagnetic field responsive members 205. While not wishing to be limited by theory, it is believed that the primary mechanism for heating the electromagnetic field responsive member 205 is Joule heating resulting from the decay of a current which is induced in the electromagnetic field responsive member 205 by the external electromagnetic field 510. A secondary heating mechanism is found when magnetic electromagnetic field responsive members 205 are used. The additional heating occurs due to an hysteretic loss in the material at temperatures below the Curie temperature of the material. In either case, the electromagnetic field responsive member 205 is heated to a temperature at which the electromagnetic field responsive member 205 transfers enough heat energy to the surrounding materials to melt or activate the materials, thus, joining them.